

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing Of Claims:**

1-15. (Canceled)

16. (New) A layer system, comprising:

a silicon layer; and

a passivation layer applied at least regionally to a surface of the silicon layer, wherein:

the passivation layer includes a first, at least largely, inorganic partial layer and a second partial layer, and

the second partial layer is made of an organic compound.

17. (New) The layer system as recited in Claim 16, wherein the organic compound contains a halogen.

18. (New) The layer system as recited in Claim 16, wherein:

the organic compound includes a silane corresponding to one of an organic fluorine silane, an organic fluorochlorine silane, and a siloxane.

19. (New) The layer system as recited in Claim 16, wherein the organic compound has the general formula  $R_a-R_b-Si(X)_{3-n}(R_c)_n$ ,  $R_a$  being a perfluorinated polyether or a perfluorinated alkyl group having 1 to 16 carbon atoms, especially 6 to 12 carbon atoms,  $R_b$  and  $R_c$  being an alkyl group, and  $X$  being a halogen, an acetoxy group or an alkoxyl group, and  $n$  having a value of 0 to 2.

20. (New) The layer system as recited in Claim 16, wherein the first partial layer is at least largely composed of an oxide layer including a silicon oxide.

21. (New) The layer system as recited in Claim 16, wherein the first partial layer has a thickness of 1 nm to 100 nm.

22. (New) The layer system as recited in Claim 16, wherein the first partial layer has a thickness of 1 nm to 20 nm.

23. (New) The layer system as recited in Claim 16, wherein the first partial layer is directly applied one of to the silicon layer and on a layer of silicon oxide situated on the silicon layer.
24. (New) The layer system as recited in one Claim 16, wherein the second partial layer is a self-assembled monolayer.
25. (New) The layer system as recited in Claim 16, wherein the second partial layer has a thickness of 0.5 nm to 30 nm.
26. (New) The layer system as recited in Claim 16, wherein the second partial layer has a thickness of 5 nm to 20 nm.
27. (New) The layer system as recited in Claim 16, wherein the passivation layer protects the silicon layer with respect to an etch attack by a gaseous halogen fluoride including one of  $\text{ClF}_3$  and  $\text{BrF}_3$ .
28. (New) The layer system as recited in Claim 16, wherein the passivation layer is free of micro-scale or nano-scale channels which are permeable for a gas including one of  $\text{ClF}_3$ ,  $\text{BrF}_3$  and a vapor.
29. (New) A method for creating a passivation layer on a silicon layer, comprising:  
creating a first, at least largely inorganic, partial layer at least in certain areas on a silicon layer; and  
creating a second partial layer containing an organic compound including silicon at least in areas on the first partial layer, the first partial layer and the second partial layer forming the passivation layer.
30. (New) The method as recited in Claim 29, further comprising:  
prior to creating the second partial layer, hydrophilizing a surface of the first partial layer in areas thereof.
31. (New) The method as recited in Claim 29, further comprising:  
applying an additional teflon-like coating to the second partial layer.

32. (New) The method as recited in Claim 29, wherein the method is used for creating structures in silicon which are at least one of largely and regionally self-supporting, by temporarily using an anisotropic etching technique in silicon and by temporarily using an isotropic etching technique in silicon.